

What is Claimed Is:

1. A method of corrupting transmit data received from a media independent interface for transmission on a network medium, comprising:

detecting an assertion of a transmit error signal on the media independent interface concurrent with a deassertion of a transmit enable signal on the media independent interface; and

5 selectively outputting a prescribed data pattern as the transmit data based on the concurrent detection of the asserted transmit error signal and the deasserted transmit enable signal.

2. The method of claim 1, further comprising detecting a predetermined condition in the transmit error signal and the transmit enable signal, the selectively outputting step outputting said prescribed data pattern in response to the concurrent detection of the asserted transmit error signal and the deasserted transmit enable signal contiguously following the predetermined condition.

3. The method of claim 2, wherein the step of detecting the predetermined condition comprises first detecting, contiguously following an idle state, a concurrent assertion of the transmit enable signal and deassertion of the transmit error signal for at least a first predetermined number of cycles.

4. The method of claim 1, further comprising outputting a modified transmit enable signal and a modified transmit error signal to a second media independent interface of a physical layer transmitter based on the concurrent detection of the asserted transmit error signal and the deasserted transmit enable signal.

5. The method of claim 4, further comprising selecting the prescribed data pattern based on an identified physical layer protocol of the physical layer transmitter.

6. The method of claim 1, further comprising selecting the prescribed data pattern based on an identified physical layer protocol of the physical layer transmitter.

Sub 7. A method of transmitting a data packet received by a repeater from a transmitting network node on a corresponding repeater port, the method comprising:

identifying one of a plurality of repeater ports serving a destination network node based on a destination address in the data packet;

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transmitting the data packet on the one repeater port serving the destination network node by concurrently asserting a transmit enable signal on a corresponding media independent interface; and

corrupting transmission of the data packet on other repeater ports by concurrently asserting a transmit error signal and deasserting the transmit enable signal on the media independent interfaces corresponding to the other repeater ports.

8. The method of claim 7, further comprising:

receiving by a physical layer transmitter the transmit data, the deasserted transmit enable signal, and the asserted transmit error signal from at least one of the media independent interfaces corresponding to at least one of the other repeater ports; and

selectively transmitting a prescribed data pattern as corrupted transmit data from the physical layer transmitter to at least one of the network nodes corresponding to the at least one of the other repeater ports based on the received transmit data, the deasserted transmit enable signal, and the asserted transmit error signal.

9. The method of claim 8, wherein the selectively transmitting step includes detecting a predetermined condition in the transmit error signal and the transmit enable signal, the selectively transmitting step outputting the prescribed data pattern in response to the concurrent detection of the asserted transmit error signal and the deasserted transmit enable signal contiguously following the predetermined condition.

10. The method of claim 9, wherein the step of detecting the predetermined condition comprises first detecting, contiguously following an idle state, a concurrent assertion of the transmit enable signal and deassertion of the transmit error signal for at least a first predetermined number of cycles.

11. The method of claim 8, further comprising selecting the predetermined data pattern based on an identified physical layer protocol between the destination network node and the physical layer transmitter.

12. An apparatus for corrupting transmit data received from a media independent interface for transmission on a network medium comprising:

a detection circuit for detecting a corruption state based on assertion of a transmit error signal on the media independent interface concurrent with a deassertion of a transmit enable signal on the media independent interface; and

an output circuit for selectively outputting a prescribed data pattern as the corrupted transmit data, for transmission on the network medium, based on detection of the corrupting state by the detection circuit.

13. The apparatus of claim 12, wherein the output circuit selectively outputs the prescribed pattern from a plurality of data patterns based on detection of the corrupting state and a physical layer protocol of the network medium.

14. The apparatus of claim 12, wherein the output circuit includes transmit control output circuitry for outputting a modified transmit enable signal and a modified transmit error signal to a second media independent interface based on the concurrent detection of the asserted transmit error signal and the deasserted transmit enable signal.

15. The apparatus of claim 14, further comprising a physical layer transceiver for generating network signals on the network medium based on the corrupted transmit data, the modified transmit enable signal, and the modified transmit error signal on the second media independent interface.

Sub 16. A repeater system comprising:
repeater ports for communication with respective network nodes via respective
repeater media independent interfaces; and
a repeater core comprising:

(1) a table for identifying each network node by its corresponding destination address and the corresponding repeater port, and

(2) a security circuit for transmitting a data packet on an identified one of the repeater ports corresponding to the network node having the destination address specified in the data packet, the security circuit corrupting transmission of the data packet on other of the network ports by concurrently asserting a transmit error signal and deasserting a transmit enable signal on the respective media independent interfaces.

17. The system of claim 16, further comprising at least one physical layer transceiver for receiving the transmitted data packet, the transmit error signal, and the deasserted transmit enable signal for at least one of the media independent interfaces corresponding to the other of the network ports, the physical layer transceiver outputting a prescribed data pattern as a corrupted data packet based on the concurrent assertion of the transmit error signal and the deassertion of the transmit enable signal.

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The system of claim 17, wherein the physical layer transceiver outputs a modified transmit enable signal, a modified transmit error signal and the corrupted data packet to a second media independent interface for transmission to the corresponding network node based on the concurrent assertion of the transmit error signal and the deassertion of the transmit enable signal.

19. The system of claim 17, wherein the physical layer transceiver includes a detection circuit for detecting a predetermined condition in the transmit error signal and the transmit enable signal, the physical layer transceiver outputting the corrupted data packet in response to the concurrent detection of the asserted transmit error signal and the deasserted transmit enable signal contiguously following the predetermined condition.

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